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A RARE SPIDER CRAB FROM CALIFORNIA (*MITHRAX ROSTRATUS* BELL)

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Among the Crustacea recently received by The American Museum of Natural History from the Brooklyn Museum, when the latter institution discontinued its collection of invertebrate zoölogy, there is an unusually large and perfect male specimen of the rare spider crab, *Mithrax* (*Mithrax*) *rostratus* Bell, hitherto known only from the type specimen which is no longer extant, described and figured by Thomas Bell in 1836, without specific locality, from among a lot of 'Crustacea of the Coasts of South America.' Dr. Milne Edwards suggested that the type may have come from the Galápagos; presumably because a number of Bell's species were from that locality. It is not improbable that this species may be found from Southern California to Peru, or even Chile, and also in the Galápagos Islands. The fact that Bell's type was a comparatively small specimen, without definite locality, and that it has not been taken again during the almost century which has elapsed, despite the extensive dredging operations of the 'Beagle,' 'Challenger,' 'Albatross,' 'Arcturus,' 'Ara,' 'Pawnee,' and the explorations conducted by the various universities and marine biological laboratories of the West Coast, makes this indeed a valuable addition to the Museum collection.

It is the western American analogue of the West Indian giant red spider crab, *Mithrax* (*Mithrax*) *spinosissimus* (Lamarck), which is known in the Antilles as the "Cangrejo de la Santa Virgin" because of the native belief that an outline of the Madonna and Child are faintly designed on the back of the crab by the arrangement of spines. Whether or not *M. rostratus* attains approximately as great size as its West Indian relative, which is conspicuously the largest of the Caribbean spider crabs, cannot be ascertained definitely until more specimens are secured, but the massive size of the present specimen, which is unquestionably littoral, would indicate that *M. rostratus* probably rivals *M. spinosissimus* in size.

For the present, the coloration of *M. rostratus* must also remain in question: this specimen, which has been in preservative since 1916, retains the carmine red on those parts which customarily fade least in preserved crabs, while the parts which usually fade first are brown or brownish yellow. In this connection, it should be noted that while Bell describes his type as "lightish brown; hands mottled," his specimens had been in preservative for sufficient time to have faded, as is established by comparing the color descriptions he gives of several more common species, the actual colors of which are now known.

Mithrax rostratus Bell

Mithrax rostratus Bell, 1835, Proc. Zoöl. Soc. London, III, (1836), p. 171; 1836, Trans. Zoöl. Soc. London, II, p. 51, Pl. x, figs. 1, 1*b*. A. Milne Edwards, 1875, 'Crust. Rég. Mex.,' p. 101.

Mithrax (*Mithrax*) *rostratus* Rathbun, M. J., 1925, Bull. 129, U. S. Nat. Mus., p. 386, Pl. clv (copy of Bell's figure).

Technical Description.—Male, Cat. No. 6182, A. M. N. H., collected at La Jolla, Califorina, 1916, by Dr. George P. Englehardt. Carapace 145 mm. long, including rostrum, which is 20 mm. long; maximum width 115 mm. across the cardio-branchial region. Carapace broadly pyriform, narrowed anteriorly with the post-cervical region broadly rounded; dorsal surface high, regularly convex, everywhere rough with short, stout, conical spines, as illustrated. These spines also occur on the side walls of the carapace, along the sub-hepatic and sub-branchial regions. The regions are clearly defined, the cervical and hepatic regions being sharply delimited, the grooves on the cardio-intestinal region being less accentuated. The rostral horns are strong, well-developed and deflected sharply downward from the base; they consist of a pair of triangular horns, united basally for half their length, but with a median groove for this distance on the dorsal surface, the distal half of each horn forming a long, narrow triangle, separated from each other by a triangular sulcus equal in size to one of the rostral horns. There is a strong triangular tooth at the superior preocular angle, with one or two lesser dentitions on the upper ocular margin; a very strong triangular tooth at the postorbital angle, directed forward and outward, below which there is a strong conical spine. The strong, outpointing conical spine which occurs at the external distal angle of the basal antennal joint forms the inferior preorbital angle; this joint also bears two lesser blunt tubercles, one at the external proximal angle and the other at the inner distal angle, just below the base of the second article; the second article is two-thirds as long as the first, but very slender, rod-like, compressed cylindrical, with a stiff fringe of bristles along its outer lateral margin; the third article is only three-fifths as long as the second, similarly rod-like but narrower, not reaching as far forward as the tip of the rostral horn.

The antennulæ fold almost vertically within the fossette which lies beneath the rostrum and is divided for about half its length by a sharp tooth.

The eyestalk is bulbous basally, decidedly constricted medially, narrowing a trifle distally with a tongue-like calcareous projection covering the dorsal surface of the cornea and bearing a tuft of setæ; the cornea is very small, terminal, moderately convex. The dense fur-like setæ of the postocular spine almost conceal the cornea.

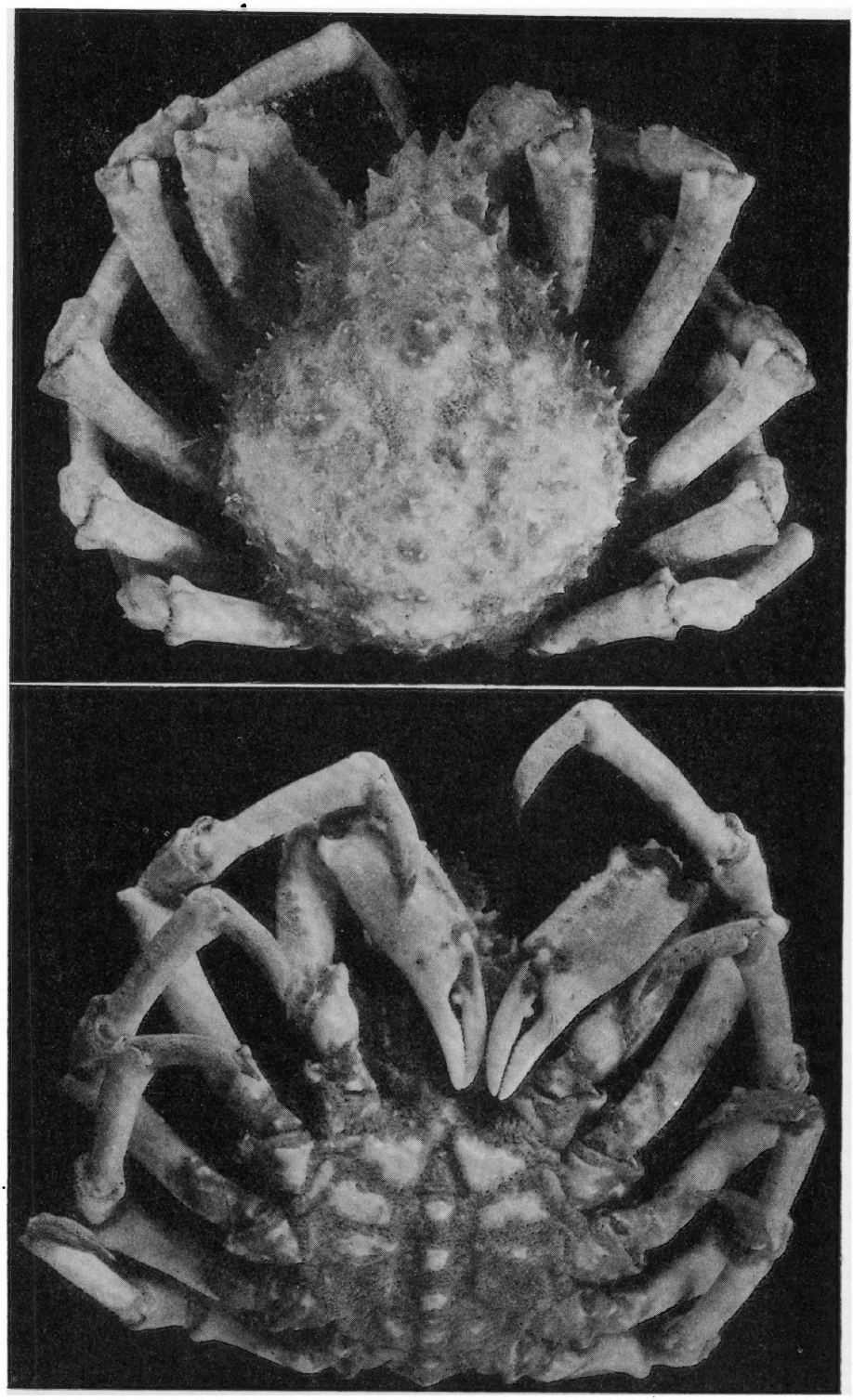

Fig. 1.—*Mithrax* (*Mithrax*) *rostratus* Bell, about one-half natural size. *a*, dorsal view; *b*, ventral view.

The external maxillipeds are densely covered with fur-like setæ; the exognath has its ischium long and slender, reaching almost to the distal angle of the buccal cavity; the whip is concealed. The ischium of the endognath is twice as long as wide with the inner distal angle produced and evenly rounded on its distal margin; the merus arises from the external distal margin of the ischium, is of irregular shape and widens distally, conforming to the contour of the buccal cavity; the inner distal angle of the merus is excavate for the reception of the small three-jointed palp which lies beside the inner margin or the merus and is heavily setose.

The sternal plastron is nearly oval, sharply ridged opposite the bases of the chelipeds and the first and second pairs of ambulatories, the depressions between these ridges and the margins of the plastron being densely tomentose. The male abdominal belt is narrowly triangular, seven-segmented, the first to sixth segments, inclusive, ridged in the middle.

The chelipeds are subequal in the male, measuring 175 mm. long; of moderate slenderness, coxa and basis strong; the ischium produced to a strong triangular process on the inner distal angle; the merus long, three-sided, widening distally, with 12 to 20 conical spines on the upper surface, most of which are on the distal part; the carpus is short, convex on the upper surface and covered with uneven conical spines; the propodus is slightly more than one and one-half times as long as the merus, the palm comprising two-thirds of the total length and being one-half as high on the outer face as long, convex, smooth, with a setose longitudinal depression just below the upper margin on the outer face; there are a number of conical tubercles proximally on the upper margin of the palm. The propodal finger is about half as long as the palm, narrow, curved downwards, with 12 or 13 ordinary blunt teeth; the hinged finger is more curved than the propodal, upon which it closes throughout the distal half of its length, which is armed with 12 or 13 low teeth; proximally there is an elliptical gape, midway of which there is a large molariform tooth.

The four pairs of ambulatory legs are similar, strong, successively decreasing in length posteriorly, the first pair exceed the length of the chelipeds by nearly an inch, the third, fourth and fifth pairs of legs each have the tip of the dactyl reaching to three-fourths the length of the preceding leg. Each leg has the basal articles strong, tomentose; the merus long, subcylindrical; the carpus nearly half as long as the merus, slender, subcylindrical, produced on the hinder lateral distal margin into a rounded lobe which projects onto the dactyl and strengthens this joint; the dactyl is strong, curved, about three-fourths as long as the propodus, densely tomentose except for the sharp, horny nail-like tip by means of which the crab obtains a grip on the rocky sea-bottom.